

Attorney Docket No.: 01CON303P

REMARKS

By the present amendment, claims 1 and 10 have been amended. After the present amendment, claims 1, 3-10, and 12-18 are pending in the application. An early allowance of claims 1, 3-10, and 12-18 in view of the above amendments and following remarks is respectfully requested.

A. Rejections of Claims 1, 3-10, and 12-18 under 35 USC §102(e)

The Examiner has rejected claims 1, 3-10, and 12-18 under 35 USC §102(e) as being anticipated by U.S. Patent Number 6,456,964 to Manjunath, et al. ("Manjunath"). Applicants respectfully disagree; however, in order to further clarify claims 1 and 10, applicants have amended claims 1 and 10. For the reasons discussed below, Applicants respectfully submit that the present invention, as defined by amended independent claims 1 and 10, is patentably distinguishable over Manjunath.

As disclosed in the present application, in one embodiment, a spectral content of a speech signal is estimated by determining a defined reference spectral response representative of the spectral content of the speech signal. A preferential coding algorithm is selected from an assortment of coding algorithms based on the estimated spectral content of the speech signal. The speech signal is coded in accordance with the selected coding algorithm. The selected algorithm controls the operation of at least one of a pre-processing filter, a post-processing filter, a coding control coefficient, a weighting filter, a synthesis filter, and a quantization table. Referring to pages 12 and 41 of the present application as filed, in one embodiment, coding of the speech signal comprises detecting different spectral contents of the speech signal and tuning the coding algorithm to compensate for at least one of a spectrally flat speech signal, an IRS

Attorney Docket No.: 01CON303P

speech signal, and a Modified Intermediate Reference System (MIRS) speech signal to produce a frequency-response compensated speech signal.

In order to further illustrate aspects according to the present invention, independent claims 1 has been amended to recite language indicating that "the coding the speech signal in accordance with the selected coding algorithm compensates for at least one of a spectrally flat speech signal, an IRS speech signal, and a MIRS speech signal to produce a frequency-response compensated speech signal", and claim 10 has been amended to recite that "the coding of the speech signal in accordance with the varied coding parameter compensates for at least one of a spectrally flat speech signal, an IRS speech signal, and a MIRS speech signal to produce a frequency-response compensated speech signal."

In contrast to the present invention as defined by amended independent claims 1 and 10, Manjunath is directed to the encoding of quasi-periodic speech using prototype waveforms. The speech signal is represented by a residual signal generated by filtering the speech signal with a Liner Predictive Coding (LPC) analysis filter. The residual signal is encoded by extracting a prototype period from a current frame of the residual signal. Parameters are calculated that describe how to modify a previous prototype period to approximate the current prototype period.

The Examiner asserts that Manjunath, at column 5, line 55 to column 6, line 14, teaches estimating a spectral content of a speech signal by determining a defined reference spectral response representative of the spectral content of the speech signal. However, upon review of this section it is apparent that Manjunath simply teaches classifying the current frame as containing either "active" or "inactive" speech. Manjunath also teaches further classifying active frames as voiced, unvoiced, or transient. Manjunath does not disclose, teach, or even suggest

Attorney Docket No.: 01CON303P

estimating a spectral content of a speech signal by determining a defined reference spectral response representative of the spectral content of the speech signal.

The Examiner further asserts that Manjunath teaches, at column 6, line 38 to column 7, line 10, coding the speech signal in accordance with the selected coding algorithm, where the selected algorithm controls the operation of at least one of a pre-processing filter, a post-processing filter, a coding control coefficient, a weighting filter, a synthesis filter, and a quantization table. However, this section of Manjunath merely discloses various modes used to code frames having different classifications. These modes include CELP mode, Prototype Pitch Period ("PPP") mode, and Noise Excited Linear Predictive ("NELP") mode. This section of Manjunath also teaches that the same coding technique can frequently be operated at different bit rates, with varying levels of performance. Nevertheless, this section of Manjunath does not disclose, teach, or suggest coding of the speech signal in accordance with a selected coding algorithm based on an estimated spectral content of the speech signal, where the selected algorithm controls the operation of at least one of a pre-processing filter, a post-processing filter, a coding control coefficient, a weighting filter, a synthesis filter, and a quantization table.

Moreover, in contrast to amended independent claims 1 and 10, Manjunath does not disclose, teach, or suggest the coding of the speech signal in accordance with a selected coding algorithm based on an estimated spectral content of the speech signal to compensate for at least one of a spectrally flat speech signal, an IRS speech signal, and a MIRS speech signal to produce a frequency-response compensated speech signal.

For the foregoing reasons, Applicants respectfully submit that the present invention as defined by amended independent claims 1 and 10 is not taught, disclosed, or suggested by the art of record. Thus, amended independent claims 1 and 10 are patentably distinguishable over the

Attorney Docket No.: 01CON303P


art of record. As such, the claims depending from amended independent claims 1 and 10 are, *a fortiori*, also patentable for at least the reasons presented above and also for additional limitations contained in each dependent claim.

B. Conclusion

Based on the foregoing reasons, an early notice of allowance for claims 1, 3-10, and 12-18 remaining in the present application is respectfully requested.

Respectfully Submitted,
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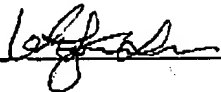
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